

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (CURRENTLY AMENDED) A method of electrochemically measuring a hematocrit (Hct) value of blood, comprising:

supplying blood to an electrode system having a working electrode and a counter electrode, a redox substance being provided on the counter electrode but not on the working electrode;

applying a voltage to the electrode system in this state to cause an oxidation current that does not depend on the redox substance or a reduction current that does not depend on the redox substance to flow between the electrodes;

detecting the oxidation current or the reduction current; and

determining a Hct value of the blood based on a value of the detected current.

2. (ORIGINAL) The method according to claim 1, wherein the redox substance comprises a redox substance that is in at least one of an oxidized state and a reduced state.

3. (ORIGINAL) The method according to claim 1, wherein the redox substance is a ferricyanide.

4. (PREVIOUSLY PRESENTED) The method according to claim 1, wherein the redox substance is potassium ferricyanide.

5. (ORIGINAL) The method according to claim 1, wherein the redox substance is a ferrocyanide.

6. (PREVIOUSLY PRESENTED) The method according to claim 1, wherein the redox substance is potassium ferrocyanide.
7. (ORIGINAL) The method according to claim 1, wherein the working electrode on which the redox substance is not provided is coated with a polymeric material.
8. (PREVIOUSLY PRESENTED) The method according to claim 1, wherein the working electrode on which the redox substance is not provided is coated with carboxymethylcellulose.
9. (ORIGINAL) The method according to claim 1, wherein the applied voltage is equal to or higher than a voltage causing electrolysis of water.
10. (ORIGINAL) The method according to claim 1, wherein the applied voltage is 1 to 10 V.
11. (ORIGINAL) The method according to claim 1, wherein the applied voltage is 1 to 6.5 V.
12. (PREVIOUSLY PRESENTED) The method according to claim 1, wherein the redox substance is a ferrocyanide, and a voltage that is negative with respect to a voltage applied to the counter electrode is applied to the working electrode.
13. (CURRENTLY AMENDED) A sensor for electrochemically measuring a hematocrit (Hct) value of blood, the sensor comprising:
an electrode system having a working electrode and a counter electrode, a redox substance being provided on the counter electrode but not on the working electrode, wherein blood is supplied to the electrode system, a voltage is applied to the electrode system in this state to cause an oxidation current that does not depend on the redox substance or a reduction current that does not depend on the redox substance to

flow between the electrodes, and a value of the oxidation current or the reduction current is detected.

14. (ORIGINAL) The sensor according to claim 13, wherein the working electrode and the counter electrode are disposed on the same insulating base material so as to be coplanar and spaced apart from each other.

15. (ORIGINAL) The sensor according to claim 13, further comprising a channel for leading blood to the sensor,

wherein the working electrode is on an upstream side and the counter electrode is on a downstream side with respect to flow of the blood supplied from one end of the channel.

16. (ORIGINAL) The sensor according to claim 13, wherein the redox substance comprises a redox substance that is in at least one of an oxidized state and a reduced state.

17. (ORIGINAL) The sensor according to claim 13, wherein the redox substance is a ferricyanide.

18. (PREVIOUSLY PRESENTED) The sensor according to claim 13, wherein the redox substance is potassium ferricyanide.

19. (ORIGINAL) The sensor according to claim 13, wherein the redox substance is a ferrocyanide.

20. (PREVIOUSLY PRESENTED) The sensor according to claim 13, wherein the redox substance is potassium ferrocyanide.

21. (ORIGINAL) The sensor according to claim 13, wherein the working electrode on which the redox substance is not provided is coated with a polymeric material.

22. (PREVIOUSLY PRESENTED) The sensor according to claim 13, wherein the working electrode on which the redox substance is not provided is coated with carboxymethylcellulose.
23. (ORIGINAL) The sensor according to claim 13, wherein the applied voltage is equal to or higher than a voltage causing electrolysis of water.
24. (ORIGINAL) The sensor according to claim 13, wherein the applied voltage is 1 to 10 V.
25. (ORIGINAL) The sensor according to claim 13, wherein the applied voltage is 1 to 6.5 V.
26. (PREVIOUSLY PRESENTED) The sensor according to claim 13, wherein the redox substance is a ferrocyanide, and a voltage that is negative with respect to a voltage applied to the counter electrode is applied to the working electrode.
27. (ORIGINAL) The sensor according to claim 13, further comprising an insulating substrate, wherein the electrode system and a channel for leading the blood to the electrode system are formed on the insulating substrate, and one end of the channel communicates with the electrode system and the other end of the channel is open toward an outside of the sensor so as to serve as a blood supply port.
28. (PREVIOUSLY PRESENTED) The sensor according to claim 13, further comprising an insulating substrate, a spacer, and a cover, wherein the electrode system and a channel for leading the blood to the electrode system are formed on the insulating substrate,

one end of the channel communicates with the electrode system and the other end of the channel is open toward an outside of the sensor so as to serve as a blood supply port, and

the cover is disposed on the insulating substrate via the spacer.

29. (ORIGINAL) The sensor according to claim 13, wherein a crystal homogenizing agent further is provided on the electrode system.

30. (CURRENTLY AMENDED) A measuring device for measuring a Hct value, comprising:

a sensor

holding means for holding [[a]] the sensor;

application means for applying a constant voltage to the electrode system of the sensor; and

detection means for detecting the oxidation current or the reduction current flowing through the electrode system of the sensor,

the sensor being a sensor for electrochemically measuring a hematocrit (Hct) value of blood, comprising:

an electrode system having a working electrode and a counter electrode, a redox substance being provided on the counter electrode but not on the working electrode,

wherein blood is supplied to the electrode system, a voltage is applied to the electrode system in this state to cause an oxidation current that does not depend on the redox substance or a reduction current that does not depend on the redox substance to flow between the electrodes, and a value of the oxidation current or the reduction current is detected.

31. (ORIGINAL) The measuring device according to claim 30, further comprising calculation means for calculating a Hct value based on a value of the current detected by the detection means,

wherein a voltage applied by the application means is equal to or higher than a voltage causing electrolysis of water.